

IN THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) A soldering method comprising:
moving a first printed circuit board and a first component thereon in a first direction on a conveyor to a return position at a soldering station,
collecting the first printed circuit board from the return position by a carriage at the soldering station and soldering the first component to the printed circuit board using a selective soldering apparatus at the soldering station,
returning the first printed circuit board to the return position,
operating the conveyor to move the first printed circuit board in the first direction to an inspection station and to move a second printed circuit board having a second component thereon to the return position,
collecting the second printed circuit board from the return position by the carriage at the soldering station and soldering the second component to the second printed circuit board using the selective soldering apparatus at the soldering station,
and, while the second printed circuit board is being soldered, automatically inspecting the first printed circuit board to detect the presence of a faulty joint on the first printed circuit board,
returning the second printed circuit board to the return position,
and, when a faulty joint on the first printed circuit board is detected,
automatically operating the conveyor in a reverse direction, opposite to the first direction, to return the first printed circuit board to the return position, and
collecting the board from the return position by the carriage and re-soldering the faulty joint.
2. (Original) A soldering method as claimed in claim 1, wherein the inspection is an optical inspection.

3. (Previously Presented) A soldering method as claimed in claim 2, wherein the inspection identifies a joint which is, or is likely to be, faulty.
4. (Original) A soldering method as claimed in claim 3, wherein when the board is returned to the soldering station only joints identified as being faulty, or components having faulty joints, are re-soldered.
5. (Canceled)
6. (Previously Presented) A soldering method as claimed in claim 1, wherein the conveyor is operated to move the second printed circuit board to the inspection station when the inspected first printed circuit board is being re-soldered, whereby the first and second boards pass one another in the production line.

Claims 7-10 (Canceled)

11. (Previously Presented) A soldering method as claimed in claim 1, wherein the second printed circuit board is returned to the return position after the conveyor is operated in the opposite direction, the first printed circuit board being moved upstream of the return position before the second printed circuit board is deposited at the return position, and then the conveyor is operated to move both printed circuit boards in the first direction, respectively to the return position and the inspection station.
12. (Canceled)
13. (Original) A soldering method as claimed in claim 1, wherein a re-soldered board is passed back to the inspection station, and a board is re-turned for re-soldering only a maximum pre-determined number of times.

14. (Original) A soldering method as claimed in claim 1, wherein a board to be re-soldered to be passed back to a fluxing and/or pre-heating station before re-soldering.

15. (Original) A soldering method as claimed in claim 14, wherein the fluxing and/or pre-heating stations are kept clear until the inspection of a board is completed, and a new board is fed to these stations only if the inspection is passed.

16. (Original) A soldering method as claimed in claim 1, wherein a board is soldered at a first dip soldering apparatus, and re-soldered at a second soldering apparatus at the soldering station.

Claims 17-30 (Canceled)